

Software Reuse

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- Software products are expensive.
- Software project managers are worried about the high cost of software development and desperately look for ways to cut development cost.
- A possible way to reduce development cost is to reuse parts from previously developed software.

Artifacts that can be reused

- Almost all artifacts associated with software development, including project plan and test plan can be reused.
- However, the prominent items that can be effectively reused are:
 - Requirements specification
 - Design
 - Code
 - Test cases
 - Knowledge

Pros and cons of knowledge reuse

- Two major difficulties with **unplanned reuse of knowledge** are that a developer experienced in one type of software product might be included in a team developing a different type of software.
- it is difficult to remember the details of the potentially reusable development knowledge.
- A planned reuse of knowledge can increase the effectiveness of reuse.

Easiness of reuse of mathematical functions

- The routines of mathematical libraries are being reused very successfully by almost every programmer.

Basic issues in any reuse program

- The following are some of the basic issues that must be clearly understood for starting any reuse program.
 - Component creation
 - Component indexing and storing
 - Component search
 - Component understanding
 - Component adaptation
 - Repository maintenance

